

- Fig. 2. *Verrucaria parva*, Deak. :—*a*, in a dry state; *b*, in a moist state; *c*, slightly magnified; *d*, vertical section of thallus and apothecia; *e*, apothecium magnified; *f*, vertical section of the same; *g*, sporidia greatly magnified.
- Fig. 3. *Verrucaria Leightonii*, Deak. :—*a*, in a dry state; *b*, in a moist state; *c*, slightly magnified; *d*, vertical section of thallus and apothecia; *e*, vertical section of apothecium magnified; *f*, sporidia greatly magnified.
- Fig. 4. *Verrucaria ovata*, Deak. :—*a*, in a dry state; *b*, slightly magnified; *c*, vertical section of thallus and apothecia; *d*, vertical section of apothecium magnified; *e*, sporidia greatly magnified.
- Fig. 5. *Verrucaria fugax*, Deak. :—*a*, in a dry state; *b*, in a moist state; *c*, slightly magnified; *d*, vertical section of thallus and apothecia; *e*, vertical section of apothecium magnified; *f*, sporidia greatly magnified.
- Fig. 6. *Verrucaria perminuta*, Deak. :—*a*, in a dry state; *b*, slightly magnified; *c*, vertical section of thallus and apothecia; *d*, vertical section of apothecium magnified; *e*, sporidia greatly magnified.
- Fig. 7. *Verrucaria viridis*, Deak. :—*a*, in a dry state; *b*, in a moist state; *c*, slightly magnified; *d*, vertical section of thallus and apothecia; *e*, vertical section of apothecium magnified; *f*, sporidia greatly magnified.
- Fig. 8. *Verrucaria plumbea*, Ach. :—*a*, in a dry state; *b*, slightly magnified; *c*, vertical section of thallus and apothecia; *d*, vertical section of apothecium magnified; *e*, sporidia greatly magnified.
- Fig. 9. *Verrucaria Harrimanni*, Ach. :—*a*, in a dry state; *b*, slightly magnified; *c*, vertical section of thallus and apothecia; *d*, sporidia greatly magnified.
- Fig. 10. *Verrucaria Gagei?* Borr. :—*a*, in a dry state; *b*, in a moist state; *c*, slightly magnified; *d*, vertical section of thallus and apothecia; *e*, vertical section of apothecium magnified; *f*, vertical section of an old apothecium; *g*, apothecium in a perfect state; *h*, apothecium in an old state; *i*, sporidia greatly magnified.
- Fig. 11. *Sagedia ampullacea*, Deak. :—*a*, in a dry state; *b*, slightly magnified; *c*, in a moist state; *d*, vertical section of thallus and apothecium; *e*, vertical section of apothecium; *f*, sporidia in ascus; *g*, sporidia greatly magnified.
- Fig. 12. *Sagedia calcarea*, Deak. :—*a*, in a dry state; *b*, in a moist state; *c*, slightly magnified; *d*, vertical section of thallus and apothecia; *e*, vertical section of apothecium; *f*, sporidia greatly magnified.
- Fig. 13. *Sagedia marina*, Deak. :—*a*, in a dry state; *b*, in a moist state; *c*, vertical section of thallus and apothecia; *d*, *e*, vertical sections of apothecia in a moist state; *f*, vertical section of apothecium in a dried state; *g*, sporidia highly magnified.

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VI.—*Account of a MS. of Laurence Theodore Gronov lately purchased for the British Museum, with a Collection of Dry Fish which it describes.* By JOHN EDWARD GRAY, Ph.D., F.R.S., V.P.Z.S.

A BOX of dry skins of fish arranged between sheets of cartridge paper like a collection of dry plants, said to be accompanied by

a MS. description, was offered for public sale in a collection of objects of *vertu* in Bond Street.

At the time of the sale and while on view the MS. could not be found; however, as a slight examination of the specimens showed they were a partially named collection of about the time of Gronov (better known by his Latinized name of Gronovius), who was, without doubt, one of the best ichthyologists of the latter part of the last century, and by a person who used the names which he had introduced, and I found there were sundry Dutch names on the specimens, and the paper of Dutch manufacture, I considered the collection even without the MS. would be an advantageous purchase.

The day after the sale the MS. was found and delivered; and I was much pleased to find it consisted of 120 separate sheets of gilt-edged quarto letter paper, containing the generic and specific characters and detailed descriptions of the new species in the collection, with a reference to their synonyma, illustrated with 84 similar sheets, consisting of original drawings of the more important species, some engravings extracted from Gronovius's 'Museum Ichthyologicum,' and some of the original drawings from whence other figures in that work and the 'Gazophylacium' of the same author had been engraved.

A careful examination of the MS. convinced me that it must have been written by that author, and was a revision and extension of his other works on Ichthyology, and must have been prepared between 1774 and his death in 1777. I am led to this conclusion from the following reasons:—

1. In referring to the works of other authors the name precedes the reference, but in referring to the 'Museum Ichthyologicum' and the 'Gazophylacium' (which is referred to throughout the whole MS.) the name is always omitted, and only the title of the work cited.

2. Under the genus "*Teuthis Linnæa*" the author refers as a synonym to "*Hepatus nobis*," and this genus was established by Gronovius in the 'Zoophylacium,' n. 352.

3. The style of the work exactly agrees with that of his preceding works, and the author uses the technical terms peculiar to him, and explained in the 'Museum Ichthyologicum.'

4. The new species are fully described; but when the species is described at length in the 'Zoophylacium,' he only refers to the page where it is to be found.

But all doubt of the authorship was set at rest by observing that in several instances the author states at the end of the species, "Descripti in Zoophylaceo, p. 113. n. 362," and once, "Descriptionem exhibui in Zooph. p. 24."

If there had remained any doubt I might have added, the

paper has the same water-mark as the paper used in the printed work above referred to, the possession of the original drawings engraved in those works, and other particulars.

I fixed the date above given, because several of the drawings are marked "De la Targue genaand van Nieuwland ad vivum del. 1774," so that it could not have been prepared before that year, and one is marked "J. J. Byland 1768." Gronovius died in 1777.

Since the above account was prepared, I have discovered the following paragraph in the preface to Meuschen's 'Museum Gronovianum,' according to which the collection of M. Laurence Theodore Gronov was sold by public sale on Wednesday the 7th of October and subsequent day, 1778.

I do not find the MS. and collection referred to in the sale, so that it was probably kept by the family, and from the appearance of the box and the padlock on it which contained the collection, it appears doubtful if it has been more than cursorily examined since that period. The key appears to have been lost, as the box has evidently been forced open.

Speaking of the former possessor of the collection, he observes—  
 "Ingens studium per omnem fere vitam præcipue nuper Defunctus hujus Thesauri Possessor collocavit in excolenda *Ichthyologia*, sui que indefessi laboris specimina abunde præbuit in *Musæo Ichthyologico* ante viginti annos edito, et in primo sui *Zoophylacii* fasciculo a 1763, in lucem emisso; unde præ ceteris hæc Musæi Gronoviani pars Naturæ Curiosorum alliciet attentionem: *tanto magis, quum in eadem Parte Regni Animalis perficienda ad mortem suam usque incredibili diligentia perrexerit; quemadmodum docuit novum Systema Ichthyologicum MS. ab Eo relictum, inque scriniis Ejus inventum, in quo multorum Piscium imagines à præstantissimis artificibus depictæ exstant, neque pauci exsiccati Pisces novo huic operi sunt inserti, quos, licet in Musæo et Zoophylacio Gronoviano sint descripti, frustra ideo in hoc Elencho quærent Historiæ Naturalis cultores.*"

The MS. contains the following genera which are not in the 'Zoophylacium'; the numbers are those in the MS.:—

- |                  |  |
|------------------|--|
| 5. Pastinaca     | = Myliobates, Dum.                             |
| 6. Torpedo       | = Temera, Gray, and Narke, Kaup.               |
| 7. Squalina      | = Squatina, Dum.                               |
| 12. Holocanthus  | = Ostracion § 3. <i>Zooph.</i> = Diodon, Linn. |
| 19. Callionymus. |  |
| 22. Cestrus      | = Sciæna, Cuv.                                 |
| 24*. Boops.      |  |
| 27. Sargus       | = Ephippus, Cuv.                               |
| 29. Gonopterus   | = Chelmon, Cuv.                                |

35. Adonis = Blennius, *Cuv.*  
 42. Gonocephalus = Dactylopterus, *Lacep., Cuv.*  
 46. Scorpæna = Scorpæna, *Cuv.*  
 47. Sarda = Caranxomores, *Lacep., Cuv.*  
 48. Thynnus = Centronotus, *Cuv.*  
 49. Trachurus = Caranx, *Cuv.*  
 52. Merlucius = Merlucius, *Cuv.*  
 71. Chromis = Sciæna?  
 79. Cephalinus = Agriopus, *Cuv.*  
 81. Trichopterus = Cirrhites, *Comm., Cuv.*  
 82. Cordylus = Scomber, *Cuv.*  
 84. Orthogoriscus = Orthogoriscus, *Schn.*  
 85. Lepturus = Macrourus, *Bloch, Cuv.*  
 87. Elops ?  
 89. Pteracles = Pteraclis, *Cuv.*  
 91. Dascilus ?  
 93. Holocentrus = ? Holocentrum, *Cuv.*  
 94. Amia = Apogon, *Lacep., Cuv.*  
 95. Stethochætus = Trichopus. = *Trichogaster Bloch.*  
 97. Cæpola = Cæpola.  
 102. Aconurus = Acanthurus, *Lacep., Cuv.*

All these genera are fully characterized.

*Lacépède* commenced his work on Fish in 1798, and finished the last volume in 1803. *Bloch* published his large work on Fish between 1785 and 1796, and *Schneider* his Synopsis of Bloch in 1801; so that all these authors published their works after the death of *Gronov* in 1777. And all these genera would have had priority, if the publication of the MS. had not been prevented by his death.

It is to be feared that the MS., and perhaps the collection, is not quite complete, as left by the author, though some part of the imperfection in the MS. may have been occasioned by its not having been completed at his death, as is proved by the absence of any description to the genus *Mystus*, and the unfinished state of the description of *Dascilus* and some others.

The imperfections are supposed, because some person, evidently not the author, or one well conversant with the subject, has marked the genera in the MS., which had never been sewed together, with a consecutive number, and the number of illustrations which accompany each genus; the same number is also marked on the cover; and on most of the separate papers containing the specimens the generic numbers are often also marked with a page, as if referring to the pages of the MS., but they are not paged, and do not agree with the pages which now exist.

It is evident that these numbers are an addition after the MS.

had left the hands of the author, for they are written in quite a different hand. The generic names are in one or two instances incorrectly written, and the numbers on the specimen pages are often very carelessly placed on the wrong end of the paper, so that the fish are seen on their back when the numbers are read; and they are frequently equally carelessly placed over the name of the specimen written by the hand of the author in pencil on each of the papers. Unfortunately these names, as well as being so written over in a few instances, have been obliterated by the dust and rubbing of the papers against the sides of the box; but the illustrations generally enable one to determine the specimens where the name has been so destroyed.

The specimens are prepared after the manner described by the uncle of the author, John Frederic Gronov, in a paper published in the 42nd volume of the 'Philosophical Transactions.' They are in a very good condition, showing that the plan is one well adapted for the purpose of a collection of the smaller species of fish.

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VII.—*A Catalogue of the Species of Ants found in Southern India.* By T. C. JERDON, Esq., Assistant Surgeon, Madras Medical Establishment\*.

I HAVE been induced to pen the following brief account of the Ants I have met with in Southern India, more with the view of stimulating others to record their observations on any species they may meet with, than under a sense of the value or completeness of the remarks contained herein. But no one, as yet, having taken the initiative, I trust that any errors in the accompanying paper will be pardoned by the scientific entomologist at home, and that the meagre details I have given will be improved and rendered more faithful and complete by observers in this country.

To assist any observers in this country, who may be able and willing to aid science on this subject, I shall here present them with a view of the classification of these interesting insects by modern entomologists, so that they may be able, in describing one which is deemed a novelty, to refer it to its place in the system, even if its real genus be not satisfactorily made out, which I fear will be too often the case, as I have experienced in my attempts at naming those described in the following pages.

Latreille, in the 'Règne Animal' of Cuvier, places Ants as part

\* Extracted from the 'Madras Journal of Literature and Science' for 1851, by Frederic Moore, Assistant, Museum, East India House.